

Abstract

FBAR Ladder Filter and Method of Grounding of FBAR Ladder Filters

A FBAR ladder filter which may yield less degradation in the stopband near the passband edges than conventionally grounded FBAR ladder filters. For that purpose a thin film resonator (FBAR) ladder filter having a plurality of serially-coupled FBAR elements, each serially-coupled FBAR element including an upper metal electrode and a lower metal electrode, and a plurality of shunt-coupled FBAR elements, each shunt-coupled FBAR element including an upper metal ground electrode providing a ground node and a lower metal electrode, is provided with at least one capacitor element including an upper metal electrode and a lower metal electrode, wherein each capacitor element is serially coupled between two ground nodes so that the inductive coupling of the shunt-coupled FBAR elements is compensated.